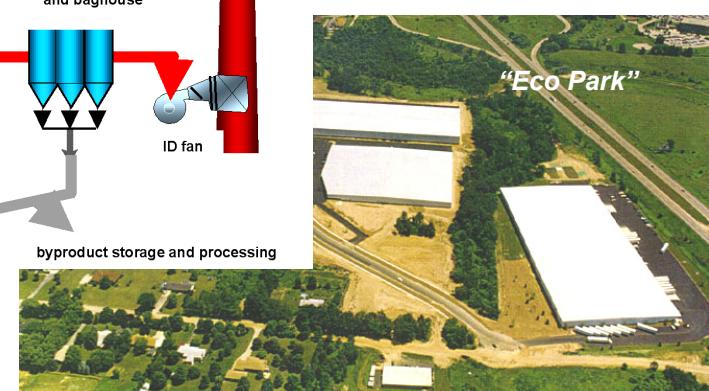
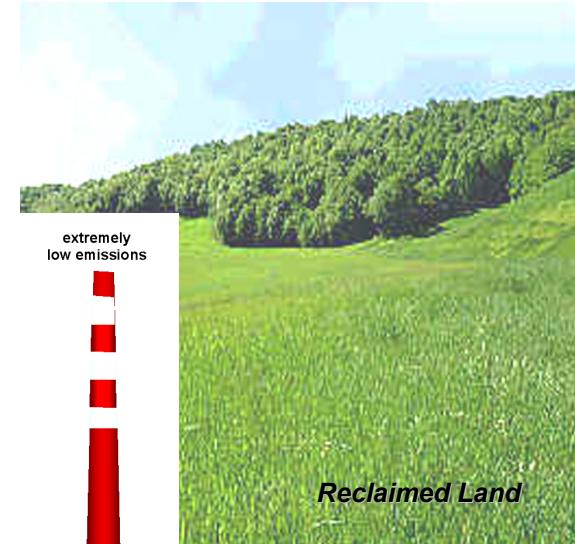
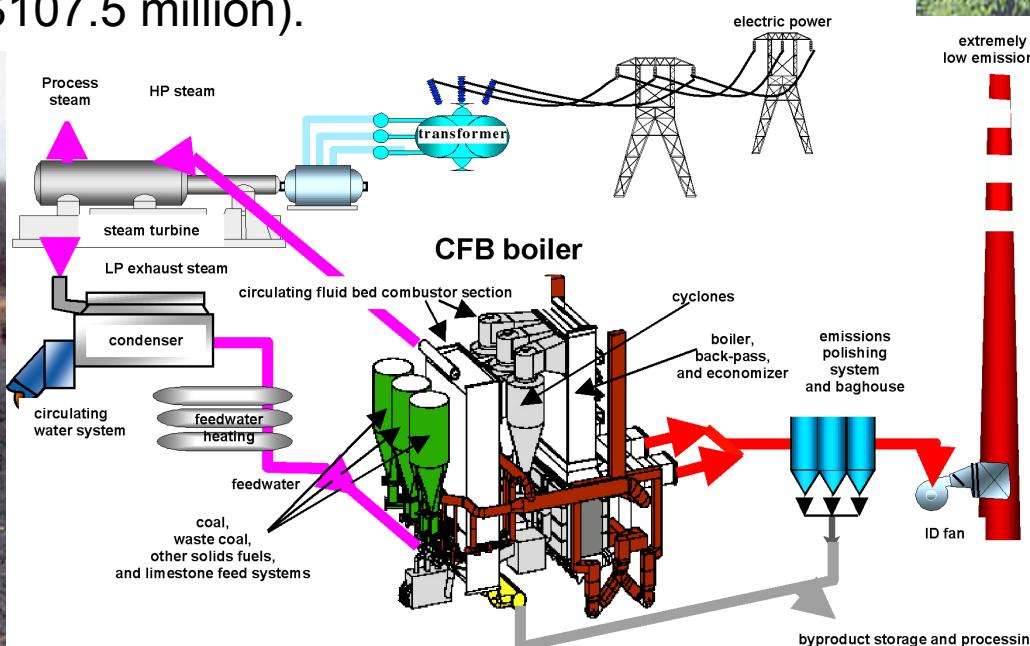


Western Greenbrier Co-Generation, LLC

- Anchor tenant in a proposed environmentally balanced industrial “Eco Park”; remediation model for State/Local Governments.
- 85 MW waste-coal to clean energy circulating fluid bed combustor with advanced multi-pollutant control system.
- Total Project funding: \$215 million (DOE Share: \$107.5 million).



A CCPI Round 1 Project

Background

- A new public service entity serving three municipalities (Rainelle, Rupert, and Quinwood) in Greenbrier County, WV.
 - WGC will demonstrate an innovative 85 MW CFB system incorporating state-of-the-art multi-pollutant controls.
- Team members include:
 - Parsons E&C (Reading, PA), turn-key systems contractor for municipalities teaming with Alstom Power Inc. (Windsor, CT) to provide CFB technology.
 - Midway Environmental Associates (Arvada, CO) and Hazen Research (Golden, CO) will use boiler ash and green wood waste to produce 300 tpd structural bricks.
- Fuel:
 - Waste coal (1,610 TPD) from a four million ton refuse site in Anjean, WV and 220 TPD freshly mined coal.



Technology Uniqueness

- This advanced, compact power plant design:
 - Employs state-of-the-art multi-pollutant controls (SO_x, NO_x, particulate, and mercury).
 - An inverted cyclone design enables boiler components to be rearranged with a more compact configuration reducing standard “footprint” by 40%.
 - Reduces structural steel and related construction costs by 60%
 - Shortens construction time and increases safety
- Hot water from turbine exhaust will be used by “Eco Park” to provide district heating and steam for potential industrial uses such as drying hardwood in a steam kiln.
- An integrated co-production facility produces value-added structural bricks.
- Maximum generating efficiency, reduced CO₂ emissions, water conservation, and co-production of steam is achieved by plant’s innovative design.



Schedule

- NEPA Process – Completing the Environmental Impact Statement
 - March 25, 2003 to November 15, 2004
- Design
 - December 1, 2003 to July 30, 2005
- Construction
 - December 1, 2004 to March 15, 2007
- Operations – Proving the Technology
 - September 1, 2007 to January 1, 2009



Potential Benefits

- Improved industrial ecology from employing advanced multi-pollutant control systems.
- Coal waste “Gob Pile” remediation (West Virginia alone contains approximately 400 million tons of Gob).
- Successful integration of these technologies and development of this facility can serve as a model for Gob remediation in United States and abroad.
- Acid mine drainage remediation (using alkaline ash).
- Hi-quality, long term employment at plant and Eco Park.
- Beneficial use of coal ash by-products.

